

REMARKS

Claim 26-49 are in this application. Claims 1-25 have been cancelled and replaced by new claims 26-49. Claims 26-49 correspond essentially to original claims 1-25. In view of the new claims, it is submitted that objections to the claims and rejections under 35 USC 112, second paragraph have been overcome and are now moot.

The Examiner states that claims 1-25 are rejected under 35 USC 112, first paragraph because the claims are not enabled. This is respectfully traversed.

According to the invention, the induced resistance to abiotic and biotic stresses makes it possible to lower necrosis 3.5 times and lower by 1.5 times the somaclonal variations that are usual for standard methods at a single separation of a leaf into "n" explants.

The claimed methods enhances the level of induced resistance formed in an explant due to the use of time intervals between the first and second steps of separating the explants from each other. During this time interval, which in one embodiment of the invention, is from 1 to 5 days, one side of the explant "is healed" by proteins and enzymes induced not only at the site of wounding. According to the invention, the final separation of an explant from a leaf is carried out upon completion of regeneration of the rear side of the explant. The final separation of the explant upon a certain time interval makes it possible to use the internal induction processes resulting from the wound shaping and aims to maintain stability and lowering necrosis of cells and somatic variations.

The formation of acquired resistance to abiotic and biotic stress in the leaf disc is consistent with the concept of the induction process occurring as a response to wound healing. (See Wound-Inducible Genes in Plants, Lan Zhou et al. CAB International 1999, p. 127-158;

Heil, c tal. Annals of Botany 89:503-512, 2002; L.C. Loon, European Journal of Plant Pathology, 103:753-765, 1997; Gachomo, et al. African Journal of Biotechnology, Vol. 2(2), pp.26-32).

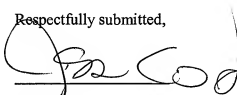
The problems of wound-inducible local and systemic resistance to plants are well known (see Zhou cited above), so that one of skill in the art would be able to make and use the invention, e.g. the claims are enabled.

One of the advantages of the claimed invention is that the enhancement of resistance of explants to necrosis is attained without using chemical agents, which, because of their selectivity, may reduce necrotic changes but may, simultaneously, affect the increasing in number of somaclonal variations.

Therefore, it is respectfully requested that the rejection be withdrawn.

It is submitted that the application is in condition for allowance and favorable consideration is respectfully requested.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'Janet I. Cord', is written over a horizontal line.

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